

IN THE ABSTRACT

It is an object of the present invention to provide a high reliability magnetic storage apparatus capable of performing writing and reading back of high density information. The magnetic storage apparatus is so configured as to have a longitudinal magnetic recording medium including: a magnetic layer formed on a non-magnetic substrate via a plurality of underlayers; the magnetic layer including a lower magnetic layer containing Ru ~~or~~ Re in an amount of not less than 3 at% to not more than 30 at%, and Cr in an amount of not less than 0 at% to not more than 18 at%, and further containing at least one of B or C in an amount of not less than 0 at% to not more than 20 at%, and an upper magnetic layer containing Co as a main component disposed thereon via a non-magnetic intermediate layer; ~~a driver for driving it in the recording direction; a composite magnetic head in which the read element is configured with a spin valve type sensor; a means for causing the magnetic head to perform relative movement with respect to the magnetic recording medium; and a read / write signal processing means for performing the signal input to the magnetic head and the output signal read back from the magnetic head.~~